10/530,849

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAGXR1652

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 4	APR 04	STN AnaVist $500 visualization usage credit offered
NEWS 5	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS 6	MAY 11	KOREAPAT updates resume
NEWS 7	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS 8	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS 9	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS 10	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS 11	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS 12	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 13	JUl 11	CHEMSAFE reloaded and enhanced
NEWS 14	JUl 14	FSTA enhanced with Japanese patents
NEWS 15	JUl 19	Coverage of Research Disclosure reinstated in DWPI

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:04:27 ON 05 AUG 2006

=> file .science

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 10:04:54 ON 05 AUG 2006

```
FILE 'AGRICOLA' ENTERED AT 10:04:54 ON 05 AUG 2006

FILE 'DRUGU' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE 'JICST-EPLUS' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 Japan Science and Technology Agency (JST)

FILE 'CABA' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 CAB INTERNATIONAL (CABI)

FILE 'BIOTECHNO' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'BIOSIS' ENTERED AT 10:04:54 ON 05 AUG 2006
Copyright (c) 2006 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 10:04:54 ON 05 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'LIFESCI' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)


FILE 'BIOTECHDS' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE 'EMBASE' ENTERED AT 10:04:54 ON 05 AUG 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.

FILE 'BIOENG' ENTERED AT 10:04:54 ON 05 AUG 2006
COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)

FILE 'SCISEARCH' ENTERED AT 10:04:54 ON 05 AUG 2006
Copyright (c) 2006 The Thomson Corporation

=> s homoserine transsuccinylase
L1          61 HOMOSERINE TRANSSUCCINYLASE

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          27 DUP REM L1 (34 DUPLICATES REMOVED)
               ANSWERS '1-5' FROM FILE MEDLINE
               ANSWERS '6-7' FROM FILE BIOSIS
               ANSWERS '8-27' FROM FILE CAPLUS

=> d his

     (FILE 'HOME' ENTERED AT 10:04:27 ON 05 AUG 2006)

     FILE 'MEDLINE, AGRICOLA, DRUGU, JICST-EPLUS, CABA, BIOTECHNO, BIOSIS,
     CAPLUS, LIFESCI, BIOTECHDS, EMBASE, BIOENG, SCISEARCH' ENTERED AT
     10:04:54 ON 05 AUG 2006
L1           61 S HOMOSERINE TRANSSUCCINYLASE
L2           27 DUP REM L1 (34 DUPLICATES REMOVED)

=> d l2 ibib abs total

L2   ANSWER 1 OF 27     MEDLINE on STN                  DUPLICATE 3
ACCESSION NUMBER:   2005203044     MEDLINE
```

DOCUMENT NUMBER: PubMed ID: 15838036
TITLE: Polyphosphate kinase protects Salmonella enterica from weak organic acid stress.
AUTHOR: Price-Carter Marian; Fazzio Thomas G; Vallbona Ester Ibanez; Roth John R
CORPORATE SOURCE: Department of Biology, University of Utah, Salt Lake City, Utah 84112, USA.
CONTRACT NUMBER: GM34804 (NIGMS)
SOURCE: Journal of bacteriology, (2005 May) Vol. 187, No. 9, pp. 3088-99.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200506
ENTRY DATE: Entered STN: 20 Apr 2005
Last Updated on STN: 22 Jun 2005
Entered Medline: 21 Jun 2005

AB Mutants of Salmonella enterica lacking polyphosphate kinase (ppk) grow poorly in the presence of the weak organic acids acetate, propionate, and benzoate. This sensitivity is corrected by methionine and seems to result from destabilization of MetA (homoserine transsuccinylase), the first enzyme in methionine biosynthesis. The MetA protein is known to be sensitive to thermal inactivation, and ppk mutants are more sensitive to heat-induced methionine auxotrophy. Peroxide increases the sensitivity of ppk mutants to both heat and acid and may oxidatively damage (carbonylate) destabilized MetA. While acid appears to impair methionine biosynthesis, it leads to derepression of MetA and may inhibit growth by causing toxic accumulation of denatured protein. This is supported by the observation that the overexpression of MetA in ppk mutants causes acid sensitivity that is not corrected by methionine. We propose that polyphosphate acts as a chemical chaperone that helps refold MetA and/or may stimulate proteolysis of toxic denatured protein. The instability of MetA protein may provide a metabolic fuse that blocks growth under conditions that denature proteins; the sensitivity of this fuse is modulated by polyphosphate.

L2 ANSWER 2 OF 27 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2000391212 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10913262
TITLE: Enzyme-catalyzed acylation of homoserine: mechanistic characterization of the Haemophilus influenzae met2-encoded homoserine transacetylase.
AUTHOR: Born T L; Franklin M; Blanchard J S
CORPORATE SOURCE: Department of Biochemistry, Albert Einstein College of Medicine, Bronx, NY 10461, USA.
CONTRACT NUMBER: AI33696 (NIAID)
GM19514 (NIGMS)
SOURCE: Biochemistry, (2000 Jul 25) Vol. 39, No. 29, pp. 8556-64.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 24 Aug 2000
Last Updated on STN: 24 Aug 2000
Entered Medline: 15 Aug 2000

AB The first unique step in bacterial and plant methionine biosynthesis involves the acylation of the gamma-hydroxyl of homoserine. In Haemophilus influenzae, acylation is accomplished via an acetyl-CoA-dependent acetylation catalyzed by homoserine transacetylase.

The activity of this enzyme regulates flux of homoserine into multiple biosynthetic pathways and, therefore, represents a critical control point for cell growth and viability. We have cloned homoserine transacetylase from H. influenzae and present the first detailed enzymatic study of this enzyme. Steady-state kinetic experiments demonstrate that the enzyme utilizes a ping-pong kinetic mechanism in which the acetyl group of acetyl-CoA is initially transferred to an enzyme nucleophile before subsequent transfer to homoserine to form the final product, O-acetylhomoserine. The maximal velocity and V/K(homoserine) were independent of pH over the range of values tested, while V/K(acetyl)(-)(CoA) was dependent upon the ionization state of a single group exhibiting a pK value of 8.6, which was required to be protonated. Solvent kinetic isotope effect studies yielded inverse effects of 0.75 on V and 0.74 on V/K(CoA) on the reverse reaction and effects of 1.2 on V and 1.7 on V/K(homoserine) on the forward reaction. Direct evidence for the formation of an acetyl-enzyme intermediate was obtained using rapid-quench labeling studies. On the basis of these observations, we propose a chemical mechanism for this important member of the acyltransferase family and contrast its mechanism with that of homoserine transsuccinylase.

L2 ANSWER 3 OF 27 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2000042598 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10572016
TITLE: Enzyme-catalyzed acylation of homoserine: mechanistic characterization of the Escherichia coli metA-encoded homoserine transsuccinylase.
AUTHOR: Born T L; Blanchard J S
CORPORATE SOURCE: Department of Biochemistry, Albert Einstein College of Medicine, Bronx, New York 10461, USA.
CONTRACT NUMBER: AI33696 (NIAID)
GM19514 (NIGMS)
SOURCE: Biochemistry, (1999 Oct 26) Vol. 38, No. 43, pp. 14416-23.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 13 Jan 2000
Entered Medline: 17 Dec 1999

AB The first unique step in bacterial and plant methionine biosynthesis involves the activation of the gamma-hydroxyl of homoserine. In Escherichia coli, this activation is accomplished via a succinylation reaction catalyzed by homoserine transsuccinylase.
The activity of this enzyme is closely regulated in vivo and therefore represents a critical control point for cell growth and viability. We have cloned homoserine transsuccinylase from E. coli and present the first detailed enzymatic study of this enzyme. Steady-state kinetic experiments demonstrate that the enzyme utilizes a ping-pong kinetic mechanism in which the succinyl group of succinyl-CoA is initially transferred to an enzyme nucleophile before subsequent transfer to homoserine to form the final product, O-succinylhomoserine. The maximal velocity, V/K(succinyl)(-)(CoA), and V/K(homoserine) all exhibited a bell-shaped pH dependence with apparent pK's of 6.6 and approximately 7.9. The enzyme was inhibited by iodoacetamide in a pH-dependent manner, with an apparent pK of the group being inactivated of 6.4. This suggests the presence of an active site cysteine which forms a succinyl-cysteine intermediate during enzymatic turnover. Solvent kinetic isotope effect studies yielded inverse effects of 0.7 on V and 0.61 on V/K in the reverse reaction only. On the basis of these observations, we propose a detailed chemical mechanism for this important member of the acyltransferase

family.

L2 ANSWER 4 OF 27 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 95173116 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7868613
TITLE: Heat shock-dependent transcriptional activation of the metA gene of Escherichia coli.
AUTHOR: Biran D; Brot N; Weissbach H; Ron E Z
CORPORATE SOURCE: Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Israel.
SOURCE: Journal of bacteriology, (1995 Mar) Vol. 177, No. 5, pp. 1374-9.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199503
ENTRY DATE: Entered STN: 7 Apr 1995
Last Updated on STN: 6 Feb 1998
Entered Medline: 27 Mar 1995

AB In Escherichia coli, the growth rate at elevated temperatures is controlled by the availability of endogenous methionine, which is limited because of the temperature sensitivity of the metA gene product, homoserine transsuccinylase (HTS). In order to determine the relationship between this control mechanism and the heat shock response, we estimated the cellular levels of HTS during heat shock by Western (immunoblot) analysis and found an increase following induction by temperature shift and by addition of ethanol or cadmium ions. The elevated level of HTS was a result of transcriptional activation of the metA gene. This activation was heat shock dependent, as it did not take place in rpoH mutants, and probably specific to the metA gene, as another gene of the methionine regulon (metE) was not activated. These results suggest a metabolic link between the two systems that control the response of E. coli to elevated temperatures: the metA gene, which codes for the enzyme responsible for regulating cell growth as a function of temperature elevation (HTS), is transcriptionally activated by the heat shock response.

L2 ANSWER 5 OF 27 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 76024802 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1100601
TITLE: Growth rate of Enterobacteriaceae at elevated temperatures: limitation by methionine.
AUTHOR: Ron E Z
SOURCE: Journal of bacteriology, (1975 Oct) Vol. 124, No. 1, pp. 243-6.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197512
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990
Entered Medline: 29 Dec 1975

AB The effect of elevated temperatures on growth rate was studied in five strains of Enterobacteriaceae. In all the strains tested a shift to the elevated temperature resulted in an immediate decrease in growth rate which was due to limitation in the availability of endogenous methionine. The first biosynthetic enzyme of the methionine pathway-homoserine transsuccinylase-was studied in extracts of Aerobacter aerogenes, Salmonella typhimurium, and Escherichia coli and was shown to be

temperature sensitive in all of them.

L2 ANSWER 6 OF 27 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1983:73430 BIOSIS
DOCUMENT NUMBER: PREV198324073430; BR24:73430
TITLE: USE OF A RECOMBINANT PLASMID CONTAINING THE MET-A GENE OF ESCHERICHIA-COLI TO STUDY GROWTH OF ENTEROBACTERIACEAE AT ELEVATED TEMPERATURES.
AUTHOR(S): MICHAELI S [Reprint author]; RON E Z
CORPORATE SOURCE: TEL-AVIV UNIV
SOURCE: (1982) pp. P95. INTERNATIONAL UNION OF MICROBIOLOGICAL SOCIETIES. 13TH INTERNATIONAL CONGRESS OF MICROBIOLOGY; BOSTON, MASS., USA, AUG. 8-13, 1982. XIV+182P. AMERICAN SOCIETY FOR MICROBIOLOGY: WASHINGTON, D.C., USA. PAPER. ISBN: 0-914826-44-1.
DOCUMENT TYPE: Book
Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L2 ANSWER 7 OF 27 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1982:171714 BIOSIS
DOCUMENT NUMBER: PREV198273031698; BA73:31698
TITLE: CONSTRUCTION AND PHYSICAL MAPPING OF PLASMIDS CONTAINING THE META GENE OF ESCHERICHIA-COLI K-12.
AUTHOR(S): MICHAELI S [Reprint author]; RON E Z; COHEN G
CORPORATE SOURCE: DEP MICROBIOL, GEORGE S WISE FACULTY LIFE SCI, TEL-AVIV UNIV, TEL-AVIV, ISRAEL
SOURCE: Molecular and General Genetics, (1981) Vol. 182, No. 2, pp. 349-354.
CODEN: MGGEAE. ISSN: 0026-8925.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Plasmids containing the metA gene (which codes for homoserine transsuccinylase of the methionine biosynthetic pathway) of E. coli K-12 were constructed in vitro using plasmid pBR322 as the cloning vehicle and λmetA transducing phage as the source of metA DNA. EcoRI digests of pBR322 and λmetA20 were jointed by ligase and plasmids carrying the metA gene were selected after transformation in a metA deletion strain. Recombinant DNA molecules contained 1 pBR322 fragment and 1 λmetA20 fragment of 12.2 kb [kilobases] which was present in either of 2 possible orientations. Plasmids constructed by BamH1 digestion of λmetA2 contained a single bacterial DNA fragment of 5.8 kb inserted in the tet gene. Insertion of the metA fragment led to loss of resistance to tetracycline in one orientation and partial resistance in the opposite orientation.

L2 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:1239041 CAPLUS
DOCUMENT NUMBER: 144:2275
TITLE: Construction of microorganism containing recombinant homoserine transsuccinylase with altered feedback sensitivity and recombinant S-adenosylmethionine synthetase with reduced activity for the production of methionine
INVENTOR(S): Bestel-Corre, Gwenaeelle Anne Lise; Chateau, Michel; Figge, Rainer Martin; Raynaud, Celine; Soucaille, Philippe Noeel Paul
PATENT ASSIGNEE(S): Metabolic Explorer, Fr.
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005111202	A1	20051124	WO 2004-IB1901	20040512

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2005108561	A2	20051117	WO 2005-EP52180	20050512

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: WO 2004-IB1901 A 20040512
OTHER SOURCE(S): CASREACT 144:2275; MARPAT 144:2275

AB The present invention relates to the use of recombinant homoserine transsuccinylase with altered sensitivity to feedback inhibitors S-adenosylmethionine and methionine (MetA*) and optionally, recombinant S-adenosylmethionine synthetase with reduced activity (MetK*) for the production of methionine, its precursors or derivs. thereof. More specifically, the authors isolated Escherichia coli mutants containing homoserine transsuccinylase which show decreased feedback-sensitivity towards S-adenosylmethionine and methionine. E. coli mutants containing S-adenosylmethionine synthetase with reduced activity were also isolated. Construction of E. coli strains for the production of O-succinylhomoserine or methionine by combining feed-back resistant MetA alleles with MetK alleles with decreased activity is described. Fermentation of E. coli production strains and anal. of yield is reported.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 27 CAPLUS DUPLICATE 2
ACCESSION NUMBER: 2005:1220814 CAPLUS
DOCUMENT NUMBER: 143:474228
TITLE: Construction of microbial recombinant homoserine transsuccinylase with altered feedback sensitivity and S-adenosyl methionine synthetase with reduced activity for the production of methionine
INVENTOR(S): Bestel-Corre, Gwenaeelle; Chateau, Michel; Figge, Rainer Martin; Raynaud, Celine; Soucaille, Philippe Noel Paul
PATENT ASSIGNEE(S): Metabolic Explorer, Fr.
SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005108561	A2	20051117	WO 2005-EP52180	20050512
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2005111202	A1	20051124	WO 2004-IB1901	20040512
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: WO 2004-IB1901 A 20040512
OTHER SOURCE(S): CASREACT 143:474228; MARPAT 143:474228

AB The present invention relates to the use of recombinant homoserine transsuccinylase with altered feedback sensitivity (MetA*) and eventually, recombinant S-adenosyl methionine synthetase with reduced activity (MetK*) for the production of methionine, its precursors or derivs. thereof. More specifically, Escherichia coli mutants containing homoserine transsuccinylase with decreased feedback sensitivity towards methionine and S-adenosylmethionine were isolated. E. coli mutants containing S-adenosyl methionine synthetase with reduced activity were also isolated. Construction of E. coli strains for the production of O-succinylhomoserine or methionine by combined feed-back resistant MetA alleles with MetK alleles with decreased activity is described. Fermentation of E. coli production strains and anal. of yield is reported.

L2 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:371078 CAPLUS
DOCUMENT NUMBER: 140:387796
TITLE: Methionine and SAM feedback-resistant homoserine transsuccinylases with modified C-terminus
INVENTOR(S): Leonhartsberger, Susanne; Pfeiffer, Kerstin; Winterhalter, Christoph; Bauer, Brigitte
PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie G.m.b.H., Germany
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004038013	A2	20040506	WO 2003-EP11486	20031016
WO 2004038013	A3	20040624		
W: CA, CN, JP, RU, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
DE 10249642	A1	20040513	DE 2002-10249642	20021024
EP 1570066	A2	20050907	EP 2003-769405	20031016
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1705751	A	20051207	CN 2003-80101894	20031016
JP 2006503568	T2	20060202	JP 2004-545867	20031016
US 2006160173	A1	20060720	US 2005-530844	20050408
PRIORITY APPLN. INFO.:			DE 2002-10249642 A	20021024
			WO 2003-EP11486 W	20031016

AB The invention relates to a homoserine transsuccinylase , which exhibits reduced sensitivity towards L-methionine or SAM in comparison with a homoserine transsuccinylase wild-type enzyme, whereby the latter comprises an amino acid sequence containing a TyrGlnXaaThrPro sub-sequence, the Thr of said sub-sequence lying between positions 285 and 310 of the amino acid sequence. The inventive homoserine transsuccinylase is characterized in that in comparison with the wild-type enzyme at least 2 amino acids are modified, said modification taking place in the Thr of the sub-sequence or in the C-terminal. Thus, exts. of E. coli containing metA gene mutants were analyzed for homoserine transsuccinylase activity in the presence of 1 mM Met or SAM. The wild-type enzyme retains 2% and 0.5% activity, resp. One of the mutants exhibited 95% activity under these circumstances. The Ki for Met was 16 mM and for SAM 9 mM.

L2 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2004:349595 CAPLUS
DOCUMENT NUMBER: 140:370810
TITLE: Feedback-resistant homoserine transsuccinylase mutants, microorganisms producing them, and their use in production of methionine and SAM
INVENTOR(S): Winterhalter, Christoph; Leonhartsberger, Susanne; Pfeiffer, Kerstin; Bauer, Brigitte
PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie G.m.b.H., Germany
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10247437	A1	20040429	DE 2002-10247437	20021011
WO 2004035617	A2	20040429	WO 2003-EP10978	20031002
WO 2004035617	A3	20040617		
W: CA, CN, JP, RU, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1549754	A2	20050706	EP 2003-767502	20031002
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				

CN 1703517	A	20051130	CN 2003-80101208		20031002
JP 2006516092	T2	20060622	JP 2004-544072		20031002
PRIORITY APPLN. INFO.:			DE 2002-10247437	A	20021011
			WO 2003-EP10978	W	20031002

AB Homoserine transsuccinylase, which contains at least one mutation compared to a homoserine transsuccinylase wild type enzyme and compared to the wild type enzyme shows a reduced sensitivity to L-methionine or SAM is disclosed. The wild-type enzyme contains a partial sequence AspGlyXaaXaaXaaThrGlyAlaPro between residues 90 and 115 and a partial sequence TyrGlnXaaThrPro between residues 285 and 310. The mutations comprise an amino acid exchange of Asp in AspGlyXaaXaaXaaThrGlyAlaPro or an amino acid exchange of Tyr in TyrGlnXaaThrPro. Thus, the Y294C mutant of E. coli MetA exhibits 96% activity in the presence of 1 mM Met while the wild-type enzyme is almost totally inhibited. The Ki for Met in the mutant is 11 mM, for Met in the wild-type, 0.05 mM. The same mutant show 92% activity in the presence of 1 mM SAM and a Ki of 10 mM, while the wild-type enzyme shows negligible activity and Ki of 0.2 mM.

L2 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2000:342198 CAPLUS
DOCUMENT NUMBER: 133:3756
TITLE: L-methionine and its preparation with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity
INVENTOR(S): Usuta, Yoshihiro; Kurahashi, Osamu
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000139471	A2	20000523	JP 1998-326717	19981117
PRIORITY APPLN. INFO.:			JP 1998-326717	19981117

AB Described is a method of manufacturing L-methionine by cultivating a Escherichia coli mutant with defective repressors (gene metJ), enhanced homoserine transsuccinylase (gene metA) activity, and, optionally, decreased S-adenosyl methionine synthetase activity. Furthermore, the mutants may also have the enhanced activities of cystathionine-γ-synthase and aspartokinase-homoserine dehydrogenase II. Also claimed are the S-adenosyl methionine synthetase (metK) mutants with substitution mutations at 27-Arg→Cys, 296-Ile→Ser, 298-Pro→Leu, or a combination of them. The mutants are free of the synergistic inhibition by L-methionine and S-adenosyl methionine. Production of L-methionine with improved efficiency by using the Escherichia coli mutants was demonstrated.

L2 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 1989:568215 CAPLUS
DOCUMENT NUMBER: 111:168215
TITLE: Nucleotide sequence of the metA gene encoding homoserine trans-succinylase in Escherichia coli
AUTHOR(S): Duclos, B.; Cortay, J. C.; Bleicher, F.; Ron, E. Z.; Richaud, C.; Saint Girons, I.; Cozzone, A. J.
CORPORATE SOURCE: Lab. Biol. Mol., Univ. Lyon, Villeurbanne, 69622, Fr.
SOURCE: Nucleic Acids Research (1989), 17(7), 2856
CODEN: NARHAD; ISSN: 0305-1048

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The nucleotide sequence of the 927 bp long metA gene encoding homoserine transsuccinylase is presented. The deduced amino acid sequence indicates a protein of 35,673 daltons in good agreement with the predicted mol. mass of the polypeptide. The last 103 codons were part of an unidentified open reading frame immediately upstream of the aceB gene.

L2 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 1984:524135 CAPLUS
DOCUMENT NUMBER: 101:124135
TITLE: Expression of the metA gene of Escherichia coli K-12 in recombinant plasmids
AUTHOR(S): Michaeli, Shulamit; Ron, Eliora Z.
CORPORATE SOURCE: George S. Wise Fac. Life Sci., Tel Aviv Univ., Tel Aviv-Jaffa, Israel
SOURCE: FEMS Microbiology Letters (1984), 23(2-3), 125-9
CODEN: FMLED7; ISSN: 0378-1097
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The expression of the metA gene for homoserine transsuccinylase [9030-70-0] was studied in wild-type and in deregulated strains of E. coli K-12 carrying the gene on multicopy plasmids. The mol. weight of the product synthesized by the metA gene was 40,000; the whole enzyme consisted of 2 subunits. In deregulated strains (i.e., those carrying a metJ mutation), the activity of the metA gene was increased 2-fold. Thus, even when metA is cloned onto a multicopy plasmid, it is under the neg. control of the regulatory metJ gene.

L2 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:513390 CAPLUS
DOCUMENT NUMBER: 141:66285
TITLE: Virulence genes and proteins from Pseudomonas aeruginosa and Klebsiella pneumoniae, and their therapeutic, diagnostic and vaccine use
INVENTOR(S): Cosson, Pierre; Kohler, Thilo; Benghezal, Mohammed; Marchetti, Anna; Van Delden, Christian
PATENT ASSIGNEE(S): University of Geneva, Switz.
SOURCE: U.S. Pat. Appl. Publ., 43 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004122212	A1	20040624	US 2002-324967	20021220
US 6974680	B2	20051213		
CA 2510474	AA	20040708	CA 2003-2510474	20031219
WO 2004057018	A2	20040708	WO 2003-CH836	20031219
WO 2004057018	A3	20040902		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003286074 A1 20040714 AU 2003-286074 20031219
EP 1578788 A2 20050928 EP 2003-776748 20031219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
US 2006171959 A1 20060803 US 2005-536606 20051215
PRIORITY APPLN. INFO.: US 2002-324967 A 20021220
WO 2003-CH836 W 20031219

AB The present invention is based on the discovery of 46 genes, VIR1-VIR46, when mutated lower the virulence of a gram-neg. bacterium, and can be used in new antimicrobial therapeutic strategies. Particularly, 19 mutants from Pseudomonas (MUT1-MUT19) and 27 from Klebsiella (MUT20-MUT46) were analyzed in Dictyostelium discoideum host system, and shown to encode products that are implicated in virulence. The identification of these genes therefore allows attenuated microorganisms to be produced. Furthermore, the genes or their encoded products can be used to identify antimicrobial drugs, diagnostic methods for the identification of a pathogen-associated disease, and in the manufacture of vaccines.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1008670 CAPLUS
DOCUMENT NUMBER: 142:88744
TITLE: Probing the active site of homoserine trans-succinylase
AUTHOR(S): Rosen, Ran; Becher, Doerte; Buettner, Knut; Biran, Dvora; Hecker, Michael; Ron, Eliora Z.
CORPORATE SOURCE: Department of Molecular Microbiology and Biotechnology, Faculty of Life Sciences, Tel-Aviv University, Tel-Aviv, 69978, Israel
SOURCE: FEBS Letters (2004), 577(3), 386-392
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Homoserine trans-succinylase is the first enzyme in methionine biosynthesis of Escherichia coli and catalyzes the activation of homoserine via a succinylation reaction. The in vivo activity of this enzyme is subject to tight regulation by several mechanisms, including repression and activation of gene expression, feedback inhibition, temperature regulation and proteolysis. This complex regulation reflects the key role of this enzyme in bacterial metabolism Here, the authors demonstrate--using proteomics and high-resolution mass spectrometry--that succinyl is covalently bound to one of the two adjacent lysine residues at positions 45 and 46. Replacing these lysine residues by alanine abolished the enzymic activity. These findings position the lysine residues, one of which is conserved, at the active site.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:40804 CAPLUS
DOCUMENT NUMBER: 102:40804
TITLE: Regulatory region of the metA gene of Escherichia coli K-12
AUTHOR(S): Michaeli, Shulamit; Mevarech, Moshe; Ron, Eliora Z.
CORPORATE SOURCE: George S. Wise Fac. Life Sci., Tel Aviv Univ., Tel Aviv-Jaffa, 69978, Israel
SOURCE: Journal of Bacteriology (1984), 160(3), 1158-62
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Transcription of the metA gene of E. coli K-12 is from a promoter which is

under methionine control and is located next to a region which has an extensive sequence homol. with the operator regions of the metBL and metF genes. However, in the metA gene, there is a 2nd transcription start point which is located 74 base pairs upstream and which is independent of the intracellular methionine concentration

L2 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:84243 CAPLUS
DOCUMENT NUMBER: 98:84243
TITLE: Level of polyamines in Escherichia coli carrying the metA gene on a multicopy plasmid
AUTHOR(S): Michaeli, Shulamit; Rozenhak, Sonia; Ron, Eliora Z.
CORPORATE SOURCE: Dep. Microbiol., Tel-Aviv Univ., Tel Aviv-Jaffa, Israel
SOURCE: Advances in Polyamine Research (1983), 4, 519-20
CODEN: APYRD9; ISSN: 0160-2179
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Strains of E. coli with elevated level of intracellular methionine were obtained by the introduction. of multicopy plasmids containing the metA gene, which codes for homoserine transsuccinylase [9030-70-0], the 1st enzyme in the methionine [63-68-3] pathway. One of the plasmids obtained which contained the metA gene was pMA-3. Strains carrying this plasmid were overproducers of methionine. In the presence of elevated intracellular methionine concns., there was an increase in spermidine [124-20-9] content that was concomitant with a decrease in the level of putrescine [110-60-1]; this resulted in a significant change in the ratio of spermidine-to-putrescine.

L2 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:469190 CAPLUS
DOCUMENT NUMBER: 97:69190
TITLE: Mechanisms involved in the increased sensitivity of Escherichia coli to microcin 15m at 42°C
AUTHOR(S): Aguilar, Alfredo; Perez-Diaz, Jose C.; Asensio, Carlos
CORPORATE SOURCE: Inst. Enzimol. Patol. Mol., Madrid, Spain
SOURCE: Current Microbiology (1982), 7(2), 83-6
CODEN: CUMIDD; ISSN: 0343-8651
DOCUMENT TYPE: Journal
LANGUAGE: English
AB E. coli Cells show a markedly increased sensitivity to the antibiotic microcin 15m when briefly treated at 42° as compared to the effect at 37°. Furthermore, mutants resistant to the microcin at 37° become sensitive at 42° at microcin concns. that are inactive at 37°. This effect can be overcome by L-methionine. The mechanism involved seems to be based on an apparent inactivation of the homoserine-O-transsuccinylase activity. As previously established, this enzyme suffers a reversible partial inactivation when the cells are shifted to 42° and the action of the microcin at this temperature seems to bring this process to a virtually irreversible stage. In mixed cultures of the microcin-producing strain and 1 E. coli stain sensitive to the antibiotic, a much stronger growth inhibition of the latter strain was observed at 42° than at 37°.

L2 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:548496 CAPLUS
DOCUMENT NUMBER: 87:148496
TITLE: Norleucine accumulation by a norleucine-resistant mutant of Serratia marcescens
AUTHOR(S): Kisumi, Masahiko; Sugiura, Masaki; Chibata, Ichiro
CORPORATE SOURCE: Res. Lab. Appl. Biochem., Tanabe Seiyaku Co., Ltd., Osaka, Japan
SOURCE: Applied and Environmental Microbiology (1977), 34(2),

135-8
CODEN: AEMIDF; ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A norleucine-resistant mutant was derived from an isoleucine-valine auxotroph of a leucine accumulator of S. marcescens. The norleucine-resistant mutant could accumulate norleucine from norvaline in the medium without the addition of methionine, which antagonized norleucine. This mutant constitutively formed homoserine-O-transsuccinylase.

L2 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:454709 CAPLUS
DOCUMENT NUMBER: 83:54709
TITLE: Methionine biosynthesis in isolated Pisum sativum mitochondria
AUTHOR(S): Clandinin, Michael T.; Cossins, Edwin A.
CORPORATE SOURCE: Dep. Bot., Univ. Alberta, Edmonton, AB, Can.
SOURCE: Phytochemistry (Elsevier) (1974), 13(3), 585-91
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Homocysteine-dependent transmethylases utilizing 5-methyltetrahydropteroylglutamic acid and S-adenosylmethionine as Me donors were examined in (NH4)2SO4 fractions prepared from isolated mitochondria of pea cotyledons. Substantial levels of 5-methyltetrahydropteroylglutamate transmethylase (I) [9033-23-2] were detected, the catalytic properties of this enzyme were similar to those of a previously reported enzyme present in cotyledon exts. The mitochondrial I had an apparent Km of 25 μM for the Me donor, was saturated with homocysteine at 1 mM and was inhibited 50% by L-methionine at 2.5 mM. At similar concns. of Me donor the mitochondrial S-adenosylmethionine methyltransferase was not saturated Mitochondrial prepns. were capable of synthesizing substantial amts. of S-adenosylmethionine but lacked ability to form S-methylmethionine. Significant levels of β-cystathionase, cystathionine-γ-synthase, L-homoserine transacetylase, and L-homoserine transsuccinylase were detected in the isolated mitochondria. The activity of the enzymes of homocysteine biosynthesis was not affected by L-methionine in vitro. Thus, pea mitochondria are able to catalyze the synthesis of methionine [63-68-3] de novo.

L2 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:45506 CAPLUS
DOCUMENT NUMBER: 80:45506
TITLE: Control of homoserine-O-transsuccinylase in a methionine-requiring mutant of the blue-green alga Anacystis nidulans
AUTHOR(S): Delaney, S. F.; Dickson, A.; Carr, N. G.
CORPORATE SOURCE: Dep. Biochem., Univ. Liverpool, Liverpool, UK
SOURCE: Journal of General Microbiology (1973), 79(Pt. 1), 89-94
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The regulation of the 1st step in methionine biosynthesis, homoserine-O-transsuccinylase, has been examined in a methionine-requiring mutant of A. nidulans. No evidence of derepression of the biosynthesis of this enzyme was found even under conditions of acute methionine starvation. End product inhibition of the enzyme by homoserine, cystathionine, and methionine was demonstrated, and shown, in the latter case, to be of an allosteric nature. The lack of transcription control of this enzyme is discussed as an example of a general phenomenon in this group of microorganisms.

L2 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:56522 CAPLUS
DOCUMENT NUMBER: 76:56522
TITLE: Regulation of the methionine feedback-sensitive enzyme in mutants of Salmonella typhimurium
AUTHOR(S): Lawrence, David A.
CORPORATE SOURCE: Lab. Enzymol., CNRS, Gif-sur-Yvette, Fr.
SOURCE: Journal of Bacteriology (1972), 109(1), 8-11
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Assay of the first enzyme unique to methionine biosynthesis, homoserine-O-transsuccinylase, in metJ and metK regulatory mutants of S. typhimurium showed that synthesis of the enzyme was derepressed seven- and four-fold, resp. The possibility of noncoordinate regulation of the methionine enzymes is discussed. In metA feedback resistant mutants the enzyme activity can be inhibited in vitro by 10 mM S-adenosylmethionine but not by 10 mM L-methionine. The synergistic inhibition found for the wild-type enzyme is not effective in these latter mutants.

L2 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:55595 CAPLUS
DOCUMENT NUMBER: 76:55595
TITLE: Miscellaneous procedures involved in transsulfuration
AUTHOR(S): Flavin, Martin
CORPORATE SOURCE: Lab. Biochem., Natl. Heart Lung Inst., Bethesda, MD, USA
SOURCE: Methods Enzymol. (1971), Volume 17, Issue Pt. B, 450-3. Editor(s): Colowick, S. P. Academic: New York, N. Y.
CODEN: 18HWA8
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Cystathionine β-synthase, assay of mixts. of β- and γ-cystathionases, β-cystathionase and cystathionine γ-synthase from Neurospora, and homoserine transsuccinylase are reviewed. 17 refs.

L2 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:484622 CAPLUS
DOCUMENT NUMBER: 75:84622
TITLE: Growth rate of Escherichia coli at elevated temperatures. Reversible inhibition of homoserine trans-succinylase
AUTHOR(S): Ron, Eliora Z.; Shani, M.
CORPORATE SOURCE: Dep. Microbiol., Tel Aviv Univ., Tel Aviv, Israel
SOURCE: Journal of Bacteriology (1971), 107(2), 397-400
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A shift from 37 to 44° decreased the activity of crude or partially purified E. coli homoserine transsuccinylase (I) prepns. This effect was rapid and immediately reversible. The change in I activity induced by elevated temperature may involve breaking of H or hydrophobic bonds, since urea at 37° caused a similar reversible lowering of I activity.

L2 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1970:528144 CAPLUS
DOCUMENT NUMBER: 73:128144
TITLE: The mechanism of ethionine toxicity to Escherichia coli
AUTHOR(S): Miller, Kathryn L.; Martin, William Randolph

CORPORATE SOURCE: Dep. of Microbiol., Univ. of Chicago, Chicago, IL, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1970), 135(2), 311-16
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Toxic effects of ethionine on E. coli in a glucose-salts medium are manifested by growth inhibition and loss of viability. Valine-14C incorporation and β-galactosidase studies indicate that ethionine rapidly inhibits protein synthesis. The methionine precursors, homocysteine and cystathionine, as well as methionine itself, reverse all ethionine effects while O-succinylhomoserine and homoserine do not. Homoserine O-transsuccinylase, the first enzyme unique for methionine biosynthesis, is inhibited by ethionine while the analog does not inhibit cystathionine synthetase or methionine transfer RNA synthetase. Data indicate that the initial effect of ethionine on E. coli is to act as an inhibitor of homoserine O-transuccinylase resulting in a severe depletion of methionine available for protein and other cellular synthesis.

L2 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:431670 CAPLUS
DOCUMENT NUMBER: 75:31670
TITLE: Genetical study of the feedback-sensitive enzyme of methionine synthesis in Salmonella typhimurium
AUTHOR(S): Chater, K. F.; Rowbury, R. J.
CORPORATE SOURCE: Genet. Dep., Univ. Birmingham, Birmingham, UK
SOURCE: Journal of General Microbiology (1970), 63(Pt. 1), 111-20
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The homoserine-O-transsuccinylase activity of 3 methionine excreting mutants of S. typhimurium was examined In 1 the enzyme was resistant to inhibition by methionine or its analog α-methylmethionine, while in the other 2 feedback inhibition was normal. The failure of methionine in the 1st was attributed to failure to penetrate the cells or to an alteration of homoserine-O-transsuccinylase such that it was not sensitive to feedback inhibition.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	76.55	76.76
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-15.00	-15.00

STN INTERNATIONAL LOGOFF AT 10:06:32 ON 05 AUG 2006